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(51)<sup>7</sup> F16D 65/21,

(54) A DISC BRAKE

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(84) ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG)

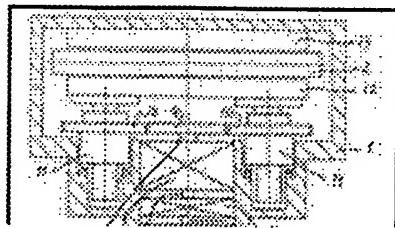
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(57) A disc brake for a heavy road vehicle has a caliper (1) arranged at a brake disc (2) mounted on a wheel axle of the vehicle. A thrust rod (11) of the disc brake transforms a rotational ingoing movement from a drive means (3) into a linear

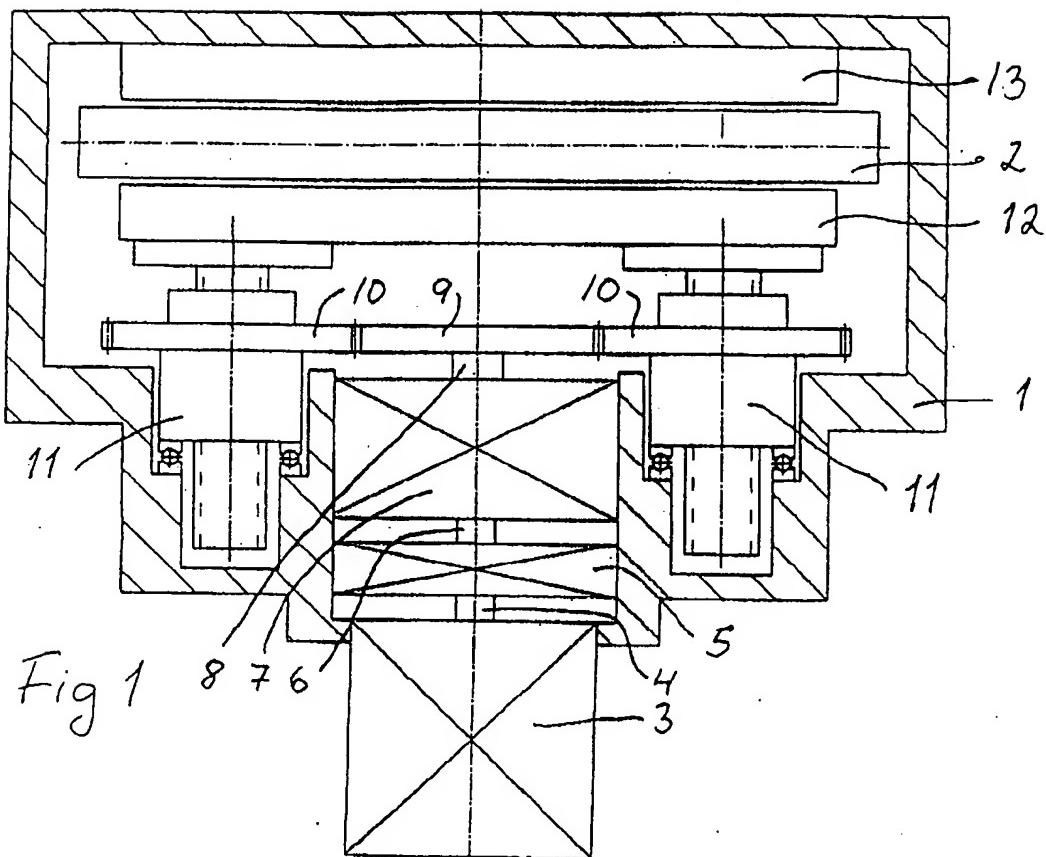


outgoing movement for transmission to a disc brake pad (12), intended for braking engagement with the brake disc. The thrust rod has a non-rotatable spindle (20), a rotatable nut member (22) in thread engagement with the spindle, and a thrust rod gear (10) for receiving the ingoing rotational movement. A biased roller and ramp arrangement (30, 10', 22') is operationally interposed between the nut member (22) and the thrust rod gear (10) and is intended for rotating the nut member on the spindle at a low counterforce in the spindle and for axially transferring the nut member with the spindle at a high counterforce in the spindle.

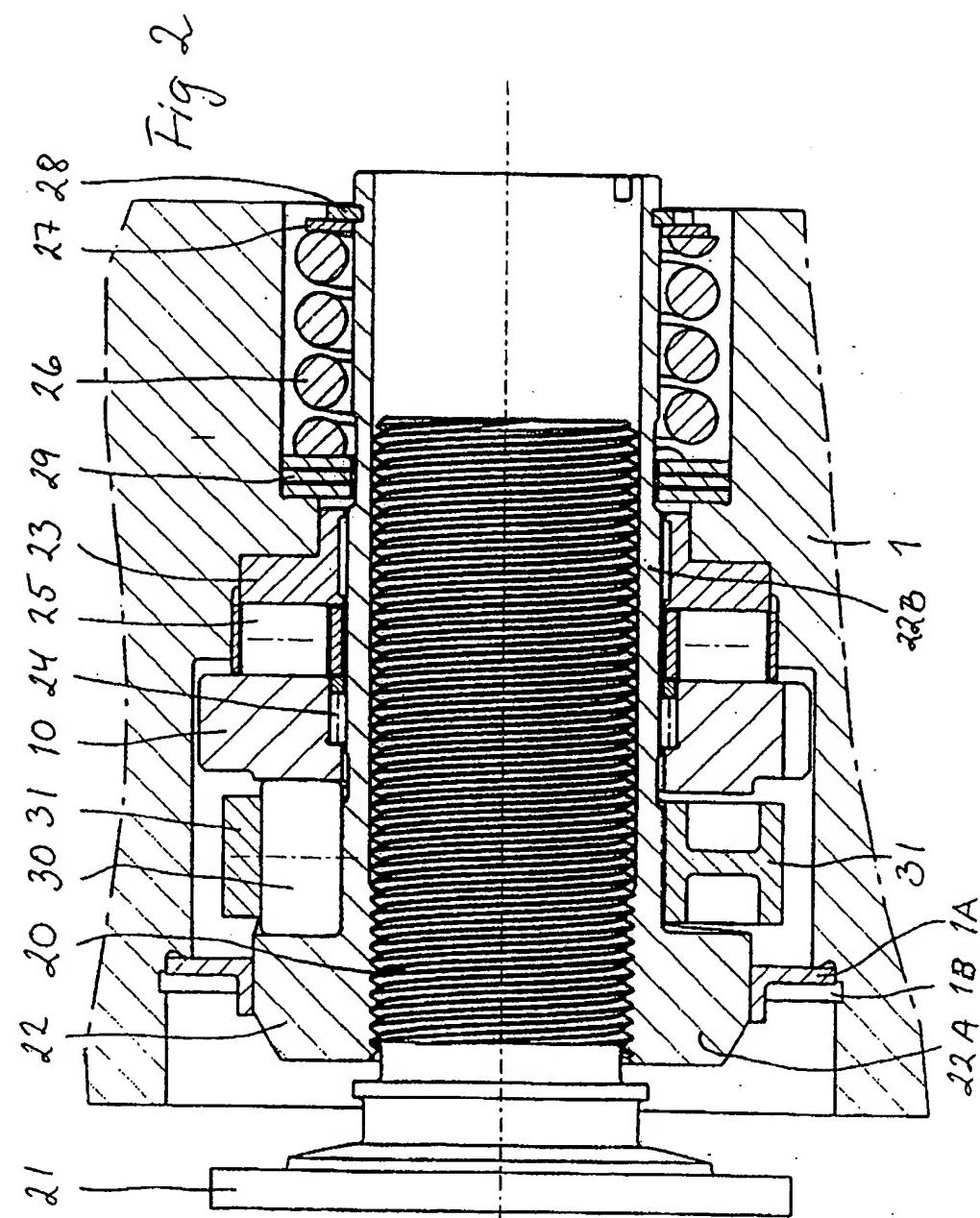


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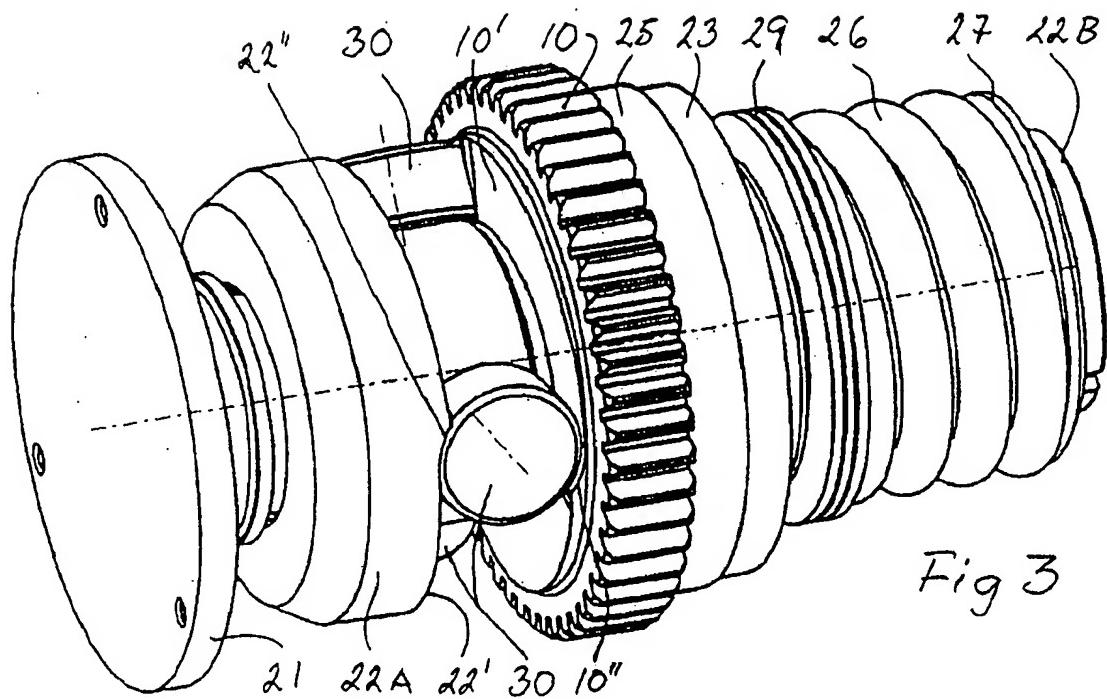
【図1】



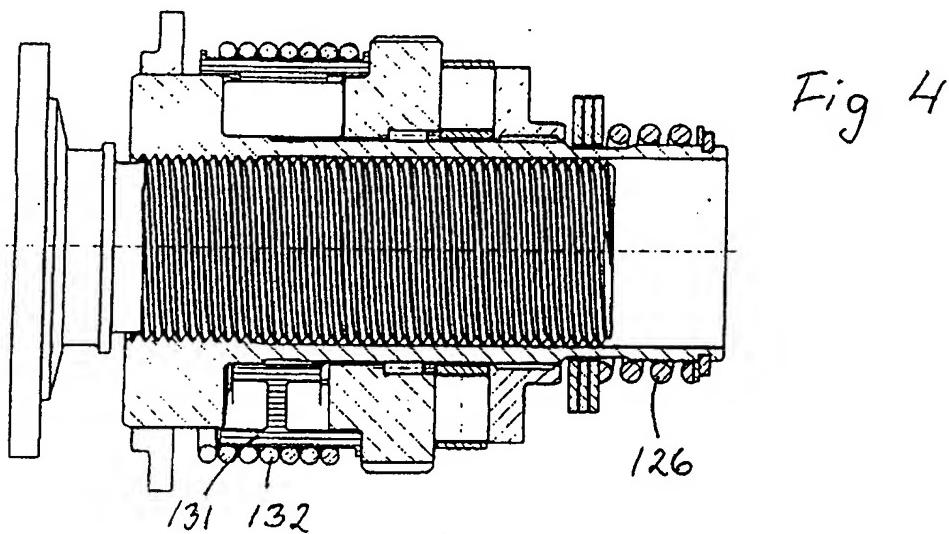
【図2】



【図3】

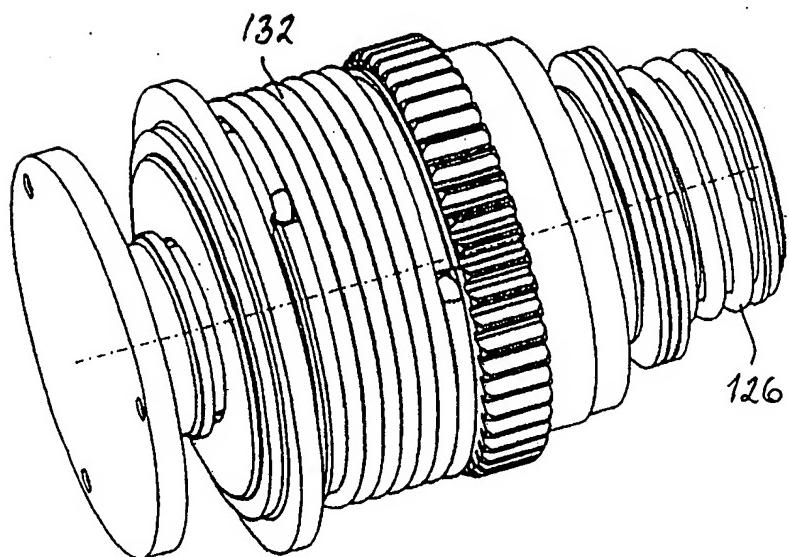


【図4】



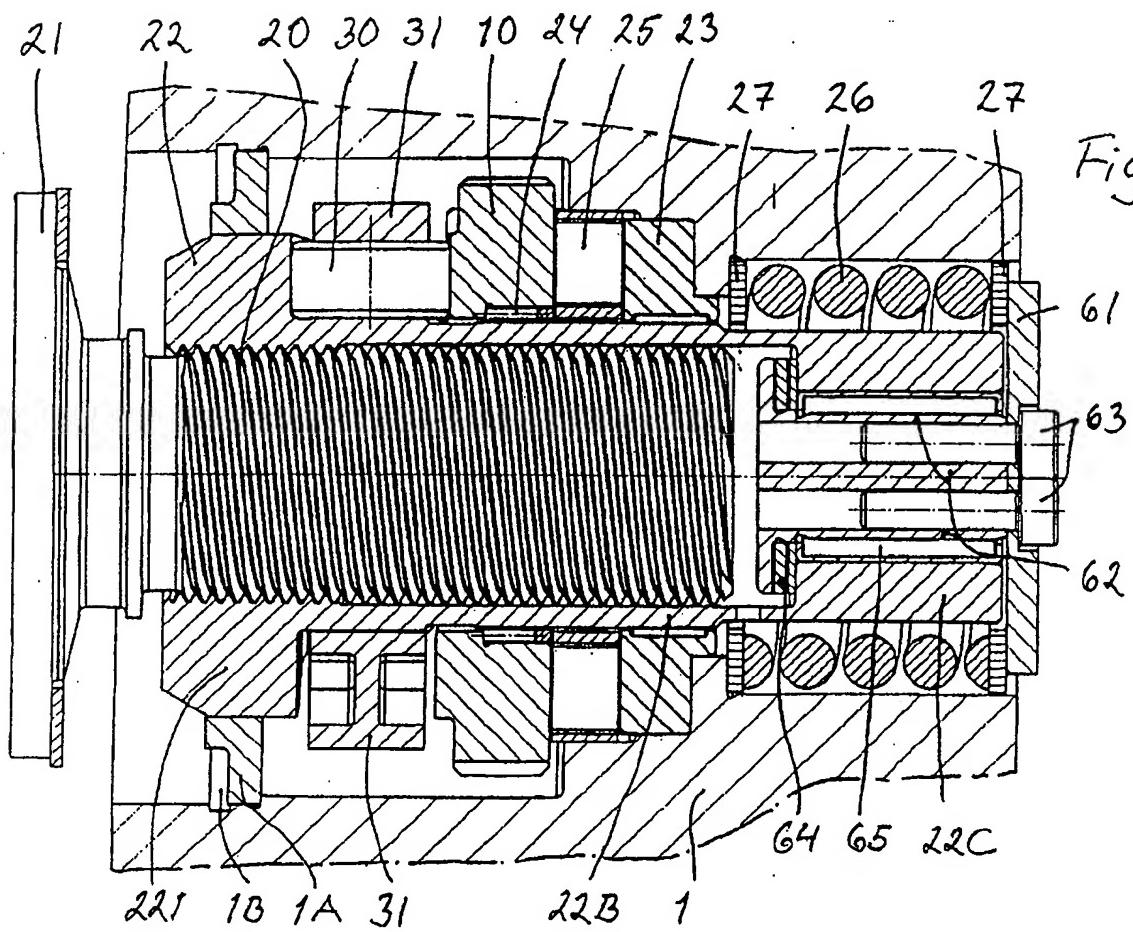
【図5】

Fig 5

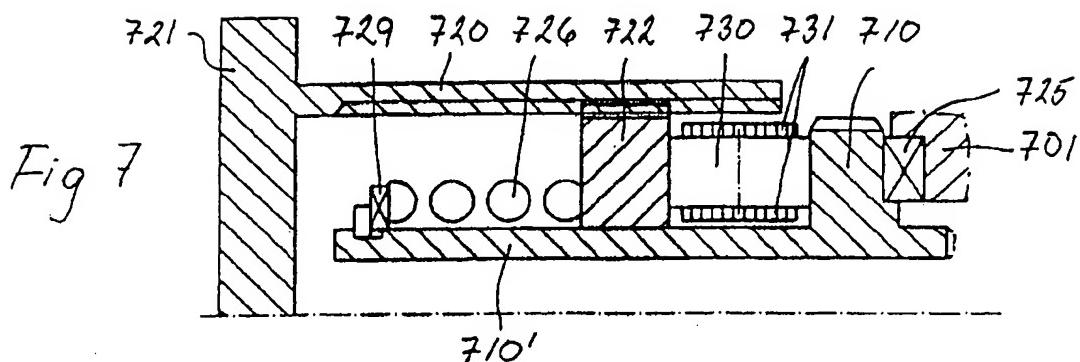


【図6】

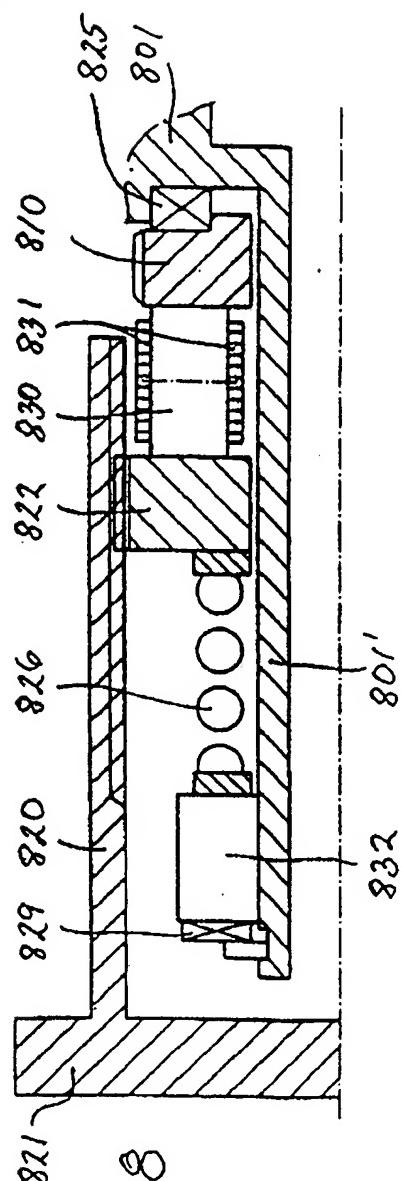
Fig 6



【図7】



【図8】



## 【国際調査報告】

## INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 00/02402

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC7: F16D 65/21, B60R 13/14 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
IPC7: F16D, B60T		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
SE, DK, FI, NO classes as above		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0886076 A2 (DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT E.V.), 23 December 1998 (23.12.98), figures 2-6,8,9, claims 8-10  -- -----	1-3,13
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents "A" document defining the general state of the art which is not considered to be of particular relevance "B" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claimed or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		
"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search	Date of mailing of the international search report	
21 March 2001	23-03-2001	
Name and mailing address of the ISA Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer Igor Gazdik/BS Telephone No. +46 8 182 25 00	

INTERNATIONAL SEARCH REPORT Information on patent family members				International application No. PCT/SE 00/02402	
Patent document cited in search report	Publication date	Patent family member(s)		Publication date	
EP 0886076 A2	23/12/98	DE US	19807432 A 6059076 A	17/12/98 09/05/00	

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